

ABSTRACT OF THE DISCLOSURE

When the DVD provided with the DVD substrate 2 having thickness t_2 of 0.6 mm is installed in the optical disc apparatus, the light beam 4 having wavelength $\lambda_1 = 655$ nm is used as luminous flux of numerical aperture $NA = 0.63$ to be condensed on the information surface 2a on the DVD substrate 2. When the CD provided with the CD substrate 3 having thickness t_2 of 1.2 mm is installed in the optical disc apparatus, the light beam 5 having wavelength $\lambda_2 = 790$ nm is effectively used as luminous flux of approximate numerical aperture $NA = 0.45$ to be condensed on the information surface 3a on the DVD substrate 3. The wavefront aberration caused by a thickness difference between the DVD substrate 2 and CD substrate 3 is canceled out by the chromatic aberration caused by a wavelength difference between the light beams 4 and 5. Therefore, in spite of the difference in the transparent substrates, the light beams are suitably condensed respectively on the information surface 2a and 3a.